

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NMSF078999

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

7. If Unit or CA/Agreement, Name and/or No.  
891000464B

1. Type of Well  
 Oil Well  Gas Well  Other: COAL BED METHANE

8. Well Name and No.  
SAN JUAN 31-6 UNIT 220

2. Name of Operator  
HILCORP ENERGY COMPANY  
Contact: TAMMY JONES  
E-Mail: tajones@hilcorp.com

9. API Well No.  
30-039-24987-00-S1

3a. Address  
1111 TRAVIS STREET  
HOUSTON, TX 77002

3b. Phone No. (include area code)  
Ph: 505.324.5185

10. Field and Pool or Exploratory Area  
BASIN FRUITLAND COAL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 33 T31N R6W NWNE 0974FNL 1521FEL  
36.860660 N Lat, 107.463850 W Lon

11. County or Parish, State  
RIO ARRIBA COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Hilcorp Energy Company requests to plug & abandon the subject wellbore, a closed loop system will be utilized. Attached is the current wellbore schematic, proposed P&A schematic, procedure & reclamation plans - (Preonsite inspection conducted 10/3/19 w/Bob Switzer, BLM and Bryan Hall, HEC).

Notify NMOCD 24 hrs  
prior to beginning  
operations

NMOCD  
OCT 24 2019  
DISTRICT III

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #486564 verified by the BLM Well Information System  
For HILCORP ENERGY COMPANY, sent to the Farmington  
Committed to AFMSS for processing by ALBERTA WETHINGTON on 10/07/2019 (20AMW0024SE)

Name (Printed/Typed) TAMMY JONES

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 10/04/2019

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By JOHN HOFFMAN

Title PETROLEUM ENGINEER

Date 10/23/2019

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Farmington

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***



HILCORP ENERGY COMPANY  
SAN JUAN 31-6 UNIT 220 POW  
P&A NOI

JOB PROCEDURES

1. Contact **NMOCD and BLM 24 hours prior** to starting P&A operations.
2. Hold pre-job safety meeting. Verify cathodic is off. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.
3. Check casing, tubing, and bradenhead pressures and record them in WellView. If there is pressure on the BH, contact Operations Engineer.
4. The following P&A procedure **assumes continuous cement behind the 7" casing from the bottom of the casing shoe at 3,079' to surface. Cementing record shows good circulation with returns to surface throughout primary cement job.** All cement will be **Class G Neat.**
5. MIRU service rig and associated equipment; NU and test BOP.
6. TOOH w/ tubing and packer. **(EOT @ +/-3,253', packer @ +/-2,948')**
7. RU W/L, RIH and set **CIBP @ +/- 2,974'.** This is 5' above the uncemented 5-1/2" Liner top that covers the Fruitland Coal perforations.
8. Perform Mechanical Integrity Test (MIT) by pressure testing the 7" casing above the CIBP set @ **2,974'** to **560 psig** for 30 minutes on a 2 hour chart with a 1,000 lb spring.
9. PU & TIH w/ tubing/work string to **+/- 2,974'.**
8. **Plug #1: FRUITLAND PERFORATIONS, KIRTLAND AND OJO ALAMO FORMATION TOPS (2,400' - 2,974', 117 Sacks of Class G Cement Total):**  
Pump a **+/- 574'** balanced cement plug (estimated **TOC @ +/- 2,400'** and **BOC @ +/- 2,974'**).
9. PU tubing/work string to **+/- 1,250'.**
10. **Plug #2: NACIMIENTO FORMATION TOP (1,150' - 1,250', 29 Sacks of Class G Cement Total):**  
Pump **+/- 100'** balanced cement plug (estimated **TOC @ +/- 1,150'** and **BOC @ +/- 1,250'**). **Includes 50' excess cement in 7" casing.**
11. TOOH w/ tubing/work string.
12. **Plug #3: SURFACE PLUG (0' - 332', 72 Sacks of Class G Cement Total):**  
Pump a **+/- 332'** balanced cement plug from surface (estimated **TOC @ +/- 0'** and **BOC @ +/- 332'**). **Includes 50' excess cement in 7" casing. Ensure cement top is at surface.**
13. TOOH w/ tubing/work string.
14. ND BOP, cut off casing below casing flange. Top off cement in surface casing annulus, if needed. Install a P&A marker with cement to comply with regulations. Rig down, move off location, cut off anchors, and restore location.



HILCORP ENERGY COMPANY  
 SAN JUAN 31-6 UNIT 220 POW  
 P&A NOI

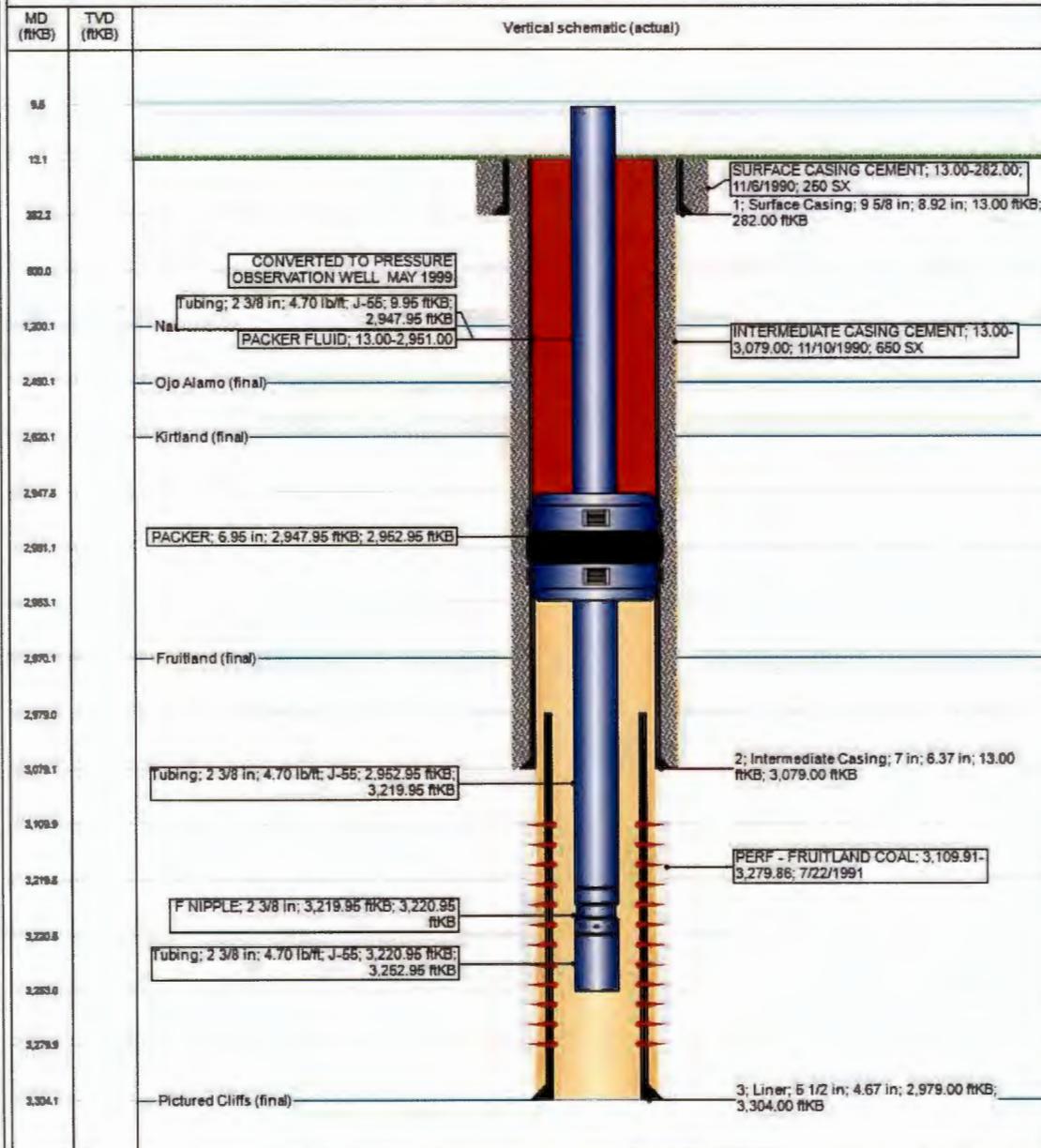
SAN JUAN 31-6 UNIT 220 POW - CURRENT WELLBORE SCHEMATIC



Well Name: SAN JUAN 31-6 UNIT #220

API / UWI 3003924987	Surface Legal Location 033-031N-006W-B	Field Name FC	Route 1105	State/Province NEW MEXICO	Well Configuration Type Vertical
Ground Elevation (ft) 6,460.00	Original KB/R/T Elevation (ft) 6,473.00	KB-Gravel Concrete (ft) 13.00	KB-Casing Flange Distance (ft)	KB-Tubing Stringer Distance (ft)	

Vertical, Original Hole, 10/3/2019 2:13:14 PM





HILCORP ENERGY COMPANY  
 SAN JUAN 31-6 UNIT 220 POW  
 P&A NOI

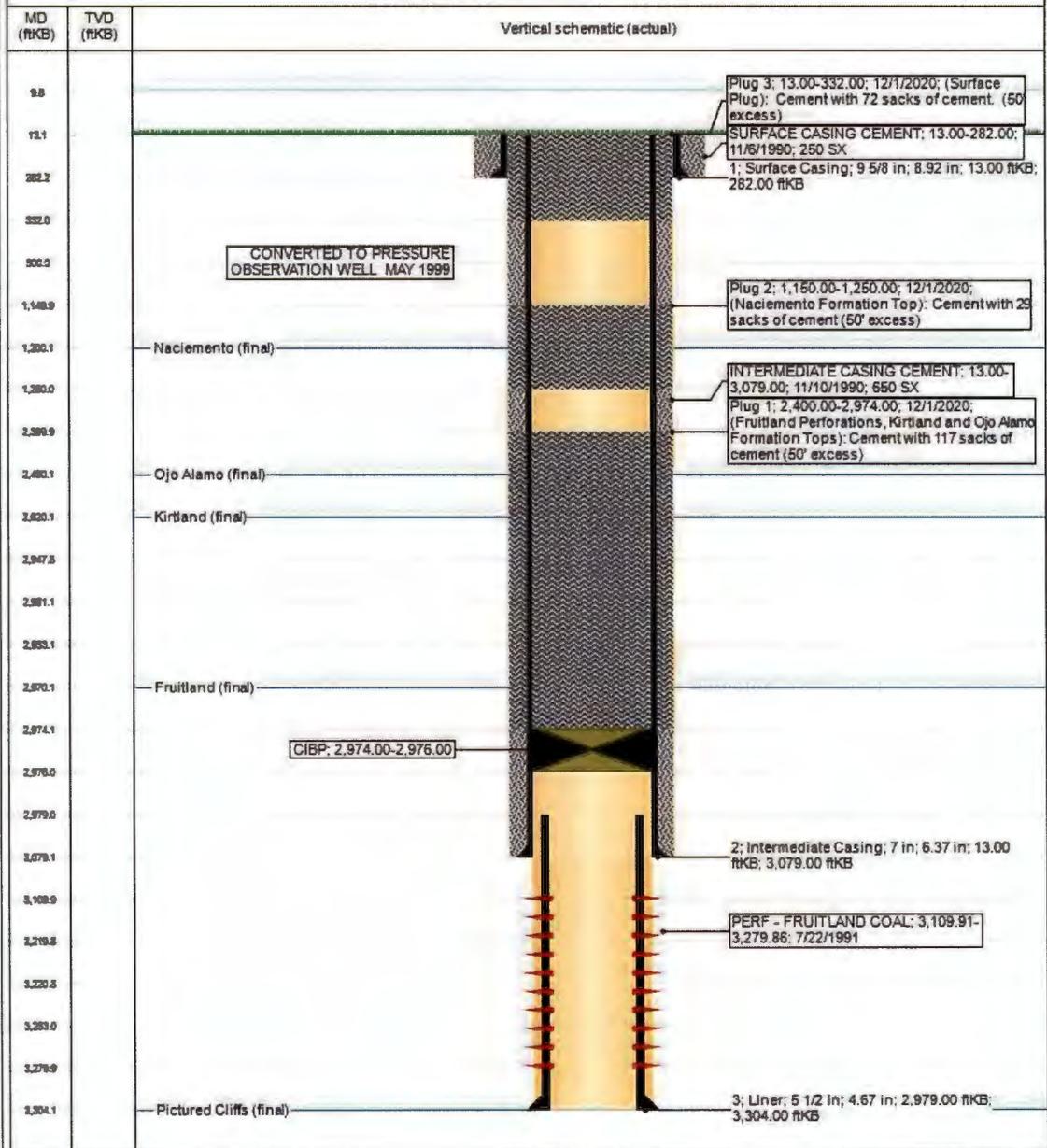
SAN JUAN 31-6 UNIT 220 POW - PROPOSED WELLBORE SCHEMATIC



Well Name: SAN JUAN 31-6 UNIT #220

API / UWI 3003924987	Surface Legal Location 033-031N-006W-B	Field Name FC	Route 1105	State/Province NEW MEXICO	Well Configuration Type Vertical
Ground Elevation (ft) 5,460.00	Original KBRT Elevation (ft) 6,473.00	KB-Ground Distance (ft) 13.00	KB-Casing Hanger Distance (ft)	KB-Tubing Hanger Distance (ft)	

Vertical, Original Hole, 12/1/2020



Hilcorp Energy

San Juan 31-6 Unit 220

30-039-24987

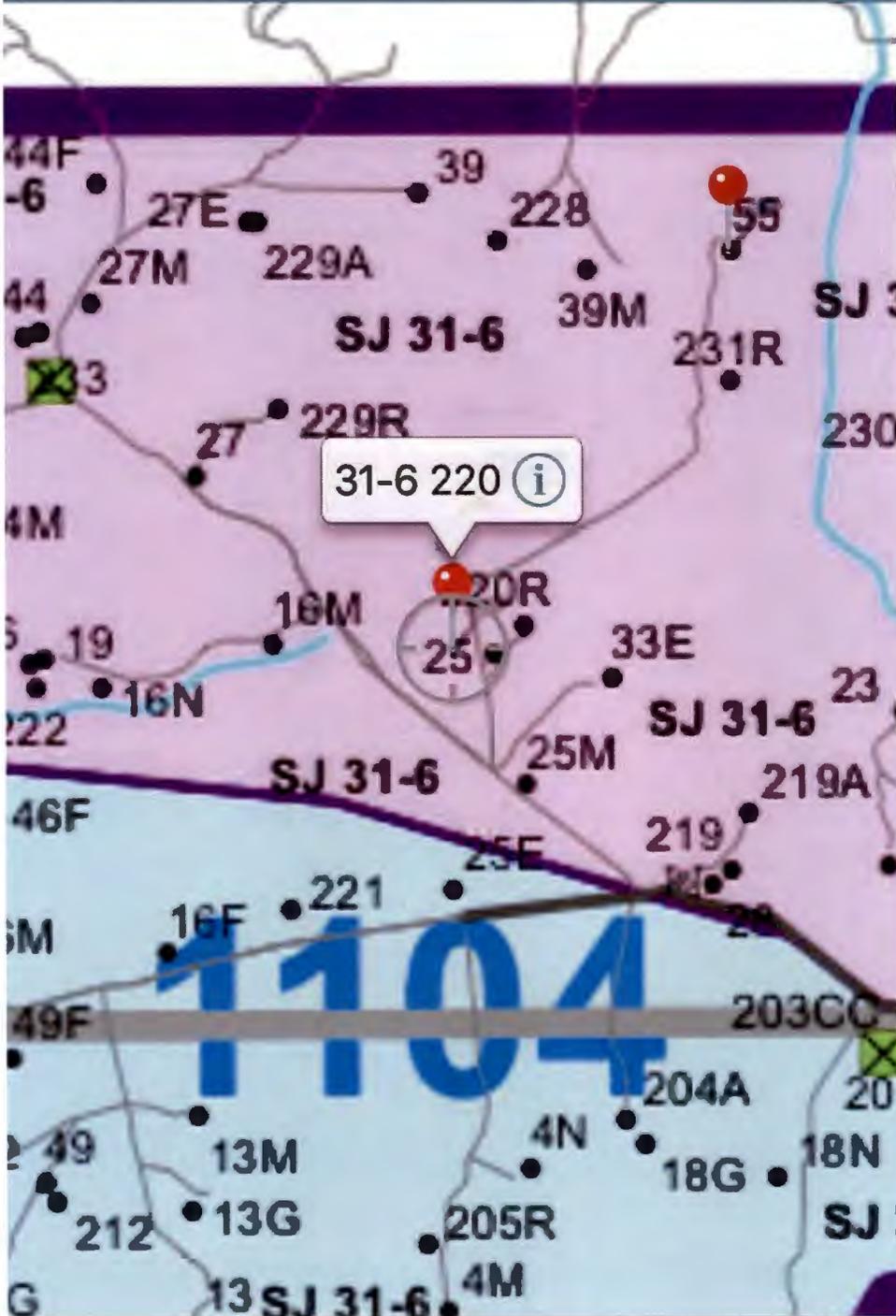
36.86067, -107.46384

Final Reclamation Plan

Onsite with Bob Switzer on 10-3-19

1. Pick up and remove all trash, metal, cable, and any foreign debris within 150' of location.
2. Remove anchors, if present.
3. Strip and stockpile topsoil.
4. Hilcorp to remove gas and water pipeline back to the dog leg.
5. Strip equipment, piping and wire off of facility.
6. P&A cathodic well.
7. Bury gravel on location.
8. Push fill back to cut slope to re-create natural ridge and terrain.
9. Reclaim Lease road.
10. Rip and disk compacted soil and walk down entire well pad.
11. Re-seed all disturbed areas. Drill where applicable at 12lbs an acre, and broadcast seed and harrow, at 24lbs an acre, all other disturbed areas. Broadcast seed a double the rate of seed. Pinion/Juniper seed mix will be used.





UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
FARMINGTON DISTRICT OFFICE  
6251 COLLEGE BLVD.  
FARMINGTON, NEW MEXICO 87402

Attachment to notice of  
Intention to Abandon:

Re: Permanent Abandonment  
Well: San Juan 31-6 Unit 220 API: 30-039-24987

**CONDITIONS OF APPROVAL**

1. Plugging operations authorized are subject to the "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
4. BLM picks formation tops as indicated in the table below for use in determining TOC for all plugs:

	<u>Top</u>
Nacimiento	1200
Ojo Alamo	2450
Kirtland	2620
Fruitland	2970
Pictured Cliffs	3304

5. Surface plug: perforate and circulate cement.

**BLM FLUID MINERALS  
Geologic Report**

**Date Completed:** 10/22/2019

Well No.	San Juan 31-6 Unit #220	Location	974	FNL &	1521	FEL
Lease No.	NMSF078999	Sec.	33	T31N		R06W
Operator	Hilcorp Energy Company	County	Rio Arriba	State	New Mexico	
Total Depth	3304	PBTD	3304	Formation	Fruitland Coal	
Elevation (GL)	6460'	Elevation (KB)	6473'			

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	1200	Surface/Fresh water sands
Nacimiento Fm			1200	2450	Fresh water sands
Ojo Alamo Ss			2450	2620	Aquifer (fresh water)
Kirtland Shale			2620	2970	
Fruitland Fm			2970	3304	Coal/Gas/Possible water
Pictured Cliffs Ss			3304	PBTD	Gas
Lewis Shale					
Chacra					
Cliff House Ss					Water/Possible gas
Menefee Fm					Coal/Ss/Water/Possible O&G
Point Lookout Ss					Probable water/Possible O&G
Mancos Shale					
Gallup					O&G/Water
Graneros Shale					
Dakota Ss					O&G/Water

**Remarks:**

P & A

- Log analysis of reference well #2 (attached worksheet) indicates the Nacimiento and Ojo Alamo sands investigated contain fresh water ( $\leq 5,000$  ppm TDS).
- Please ensure that the tops of the Pictured Cliffs, Fruitland, and Nacimiento Formations, as well as the entire Ojo Alamo fresh water aquifer identified in this report are isolated by proper placement of cement plugs. This will protect the fresh water sands in this well bore.

**Reference Well:**

1) Same	Fm. Tops
2) Meridian Oil Johnston Fed #15 1680' FNL, 1450' FWL Sec. 35, T31N, R09W GL 6000', KB 6011'	Water Analysis

**Prepared by:** *Chris Wenman*

**GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

**4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.**

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H<sub>2</sub>S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.